



Product EOL Announcement

The Product EOL Announcement signifies that a product series has entered the final phase of the Ecliptek Product Life Cycle, and serves as advance notice of product termination per the Ecliptek End of Life (EOL) policy.

Ecliptek Corporation announces End of Life initiation for the following product series with the intent of discontinuing its availability.

EOL Series	Description
EB51F4	5.0Vdc 14-Pin DIP HCMOS TCXO

EOL Timeline

The last date Ecliptek will accept orders (Stage 2) and the last date orders may be scheduled for shipment (Stage 3) are listed in the table below.

Stage 1 EOL Announce Date	Stage 2 Last Date to Order	Stage 3 Last Date to Ship
10-May-2011	28-February-2012	31-May-2012

Alternative Products

In order to fulfill your requirements beyond this product's discontinuation, we invite you to evaluate alternative Ecliptek products. Because this series does not have a recommended alternative Ecliptek product series, please contact one of our Global Customer Support Executives to assist you with finding the best Ecliptek product for your application.

Automated EOL Notification

Ecliptek offers automated notification of Product EOL Announcements. Place part numbers for which you'd like to receive EOL Notifications into your personalized [Parts List](#) on our website and we'll email you when EOL is announced.

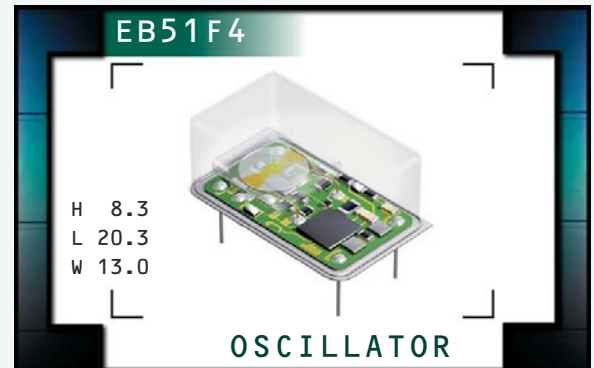
Please do not hesitate to contact us if you have any questions or need further assistance.

Ecliptek Global Customer Support Team
(800) 433-1280 x300
customersupport@ecliptek.com

All product warranties for discontinued products will be honored in full according to Ecliptek [Terms and Conditions of Sale](#).

EB51F4 Series

- Temperature Compensated Crystal Oscillators (TCX0)
- HCMOS/TTL Output
- +5.0V Supply Voltage
- External Voltage Control Option
- Custom Lead Length & Gull Wing Options
- 14 pin DIP Metal Package



NOTES

ELECTRICAL SPECIFICATIONS

Frequency Range		1.544MHz to 44.736MHz
Operating Temperature Range		See Table 1
Storage Temperature Range		-55°C to 125°C
Supply Voltage (V_{DD})		5.0V _{DC} ±5%
Input Current	Measured at Steady State at 25°C, at Nominal V_{DD} , at Nominal V_C	30mA Maximum
Frequency Stability	vs. Initial Frequency Tolerance	±2.5ppm (at Nominal V_{DD} and V_C , at 25°C)
	vs. Operating Temperature Range	See Table 1 (at Nominal V_{DD} and V_C)
	vs. Input Voltage (V_{DD} ±5%)	±0.3ppm Maximum
	vs. Load (±10%)	±0.2ppm Maximum
Aging (at 25°C)		±1ppm / year Maximum
Output Voltage Logic High (V_{OH})		$V_{DD} - 0.5V_{DC}$ Minimum
Output Voltage Logic Low (V_{OL})		0.5V _{DC} Maximum
Rise Time / Fall Time	20% to 80% of Waveform	6 nSeconds Maximum
Duty Cycle	at 50% of Waveform	50 ±5(%)
Load Drive Capability		30pF Maximum
Control Voltage Range		0.0V _{DC} to V_{DD}
Control Voltage (External)	Positive Transfer Characteristic	2.5V _{DC} ±2.0V _{DC}
Frequency Deviation	Referenced to F_0 at $V_C = 2.5V_{DC}$, $V_{DD} = 5.0V_{DC}$	±7ppm Minimum, ±20ppm Maximum
Linearity		±10% Maximum
Input Impedance		10kOhms Typical
Phase Noise (at 19.440MHz)	Measured at 25°C, at Nominal V_{DD} , at Nominal V_C	
	at 10Hz Offset	-70dBc/Hz Typical
	at 100Hz Offset	-100dBc/Hz Typical
	at 1kHz Offset	-130dBc/Hz Typical
	at 10kHz Offset	-140dBc/Hz Typical
	at 100kHz Offset	-145dBc/Hz Typical

MANUFACTURER	CATEGORY	SERIES	PACKAGE	VOLTAGE	CLASS	REV. DATE
ECLIPTEK CORP.	OSCILLATOR	EB51F4	14-PIN DIP	5.0V	OS2W	02/05

PART NUMBERING GUIDE

EB51F4 D 15 A V - 12.800M - G

INITIAL TOLERANCE
D=±2.5ppm Maximum

FREQUENCY STABILITY
Two Digit Code Per Table 1

OPERATING TEMP. RANGE
One Letter Code Per Table 1

AVAILABLE OPTIONS

Blank=None
CB=Cut Leads to 2.540 ±0.500 (0.100" ±0.020")
CC=Cut Leads to 3.175 ±0.500 (0.125" ±0.020")
CD=Cut Leads to 3.810 ±0.500 (0.150" ±0.020")
CE=Cut Leads to 4.445 ±0.500 (0.175" ±0.020")
G=Full Size Gull Wing

FREQUENCY

EXTERNAL TRIM

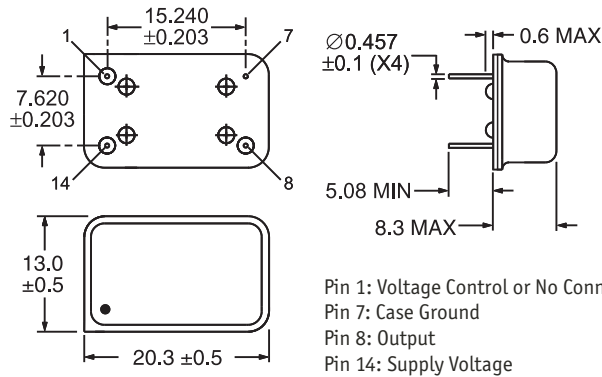
N=None (No Connection on Pin 1)
V=Voltage Control on Pin 1

TABLE 1: PART NUMBERING CODES

Operating Temperature Range	Code	Frequency Stability			
		X = Available from 1.544MHz to 32.768MHz Y = Available at any Frequency			
		±1.5ppm	±2.0ppm	±3.0ppm	±5.0ppm
0°C to +50°C	A	Y	Y	Y	Y
0°C to 70°C	B	X	Y	Y	Y
-20°C to +70°C	C	X	X	Y	Y
-30°C to +75°C	D		X	Y	Y
-40°C to +85°C	E			X	Y

MECHANICAL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS



MARKING SPECIFICATIONS

Line 1: ECLIPTEK

Line 2: XX.XXX M

M=MHz

Frequency (5 Digits Maximum + Decimal)

Line 3: XX Y ZZ

Week of Year

Last Digit of Year

Ecliptek Manufacturing Identifier

Note: Pin 1 shall be designated with a dot

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

Characteristic

Fine Leak Test
 Gross Leak Test
 Mechanical Shock
 Vibration
 Lead Integrity
 Solderability
 Temperature Cycling
 Resistance to Soldering Heat
 Resistance to Solvents

Specification

MIL-STD-883, Method 1014, Condition A
 MIL-STD-883, Method 1014, Condition C
 MIL-STD-202, Method 213, Condition C
 MIL-STD-883, Method 2007, Condition A
 MIL-STD-883, Method 2004
 MIL-STD-883, Method 2002
 MIL-STD-883, Method 1010
 MIL-STD-883, Method 210
 MIL-STD-883, Method 215

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
OSCILLATOR

SERIES
EB51F4

PACKAGE
14 pin DIP

VOLTAGE
5.0V

CLASS
OS2W

REV. DATE
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